| Learning to Fly: The Wright Brother's Adventure | | | |
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| **2004 Science** | | | |
| **Grade Level Expectations** | | | |
| **Louisiana Science** | | | |
| **Grade 6** | | | |
| **Activity/Lesson** | **State** | **Standards** | |
| The Society | LA | SCI.6.SI.26 | Use and describe alternate methods for investigating different types of testable questions |
| 1900: Kitty Hawks | LA | SCI.6.SI.4 | Design, predict outcomes, and conduct experiments to answer guiding questions |
| 1900: Kitty Hawks | LA | SCI.6.PS.20 | Draw and label a diagram to represent forces acting on an object |
| 1901: The First Improvement | LA | SCI.6.SI.5 | Identify independent variables, dependent variables, and variables that should be controlled in designing an experiment |
| 1901: The First Improvement | LA | SCI.6.PS.19 | Identify forces acting on all objects |
| 1901: The First Improvement | LA | SCI.6.PS.20 | Draw and label a diagram to represent forces acting on an object |
| New Data | LA | SCI.6.SI.12 | Use data and information gathered to develop an explanation of experimental results |
| 1902: Success at Last | LA | SCI.6.SI.33 | Evaluate models, identify problems in design, and make recommendations for improvement |
| 1903: Powered Flight | LA | SCI.6.SI.4 | Design, predict outcomes, and conduct experiments to answer guiding questions |
| 1903: Powered Flight | LA | SCI.6.SI.14 | Develop models to illustrate or explain conclusions reached through investigation |
| 1904: Improvement in Dayton | LA | SCI.6.SI.19 | Communicate ideas in a variety of ways (e.g., symbols, illustrations, graphs, charts, spreadsheets, concept maps, oral and written reports, equations) |
| 1904: Improvement in Dayton | LA | SCI.6.PS.20 | Draw and label a diagram to represent forces acting on an object |
| 1904: Improvement in Dayton | LA | SCI.6.PS.21 | Determine the magnitude and direction of unbalanced (i.e., net) forces acting on an object |
| 1904: Improvement in Dayton | LA | SCI.6.PS.23 | Predict the direction of a force applied to an object and how it will change the speed and direction of the object |
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| Learning to Fly: The Wright Brother's Adventure | | | |
| **2004 Science** | | | |
| **Grade Level Expectations** | | | |
| **Louisiana Science** | | | |
| **Grade 7** | | | |
| **Activity/Lesson** | **State** | **Standards** | |
| 1901: The First Improvement | LA | SCI.7.SI.33 | Evaluate models, identify problems in design, and make recommendations for improvement |

| Activity/Lesson | State | Standards | |
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| New Data | LA | SCI.7.SI.4 | Design, predict outcomes, and conduct experiments to answer guiding questions |
| New Data | LA | SCI.7.SI.12 | Use data and information gathered to develop an explanation of experimental results |
| New Data | LA | SCI.7.SI.22 | Use evidence and observations to explain and communicate the results of investigations |
| 1902: Success at Last | LA | SCI.7.SI.33 | Evaluate models, identify problems in design, and make recommendations for improvement |
| 1903: Powered Flight | LA | SCI.7.SI.33 | Evaluate models, identify problems in design, and make recommendations for improvement |
| 1904: Improvement in Dayton | LA | SCI.7.SI.22 | Use evidence and observations to explain and communicate the results of investigations |
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| **Learning to Fly: The Wright Brother's Adventure** | | | |
| **2004 Science** | | | |
| **Grade Level Expectations** | | | |
| **Louisiana Science** | | | |
| **Grade 8** | | | |
| **Activity/Lesson** | **State** | **Standards** | |
| The Society | LA | SCI.8.SI.2 | Identify problems, factors, and questions that must be considered in a scientific investigation |
| 1901: The First Improvement | LA | SCI.8.SI.33 | Evaluate models, identify problems in design, and make recommendations for improvement |
| 1901: The First Improvement | LA | SCI.8.PS.7 | Explain the relationships among force, mass, and acceleration |
| New Data | LA | SCI.8.SI.12 | Use data and information gathered to develop an explanation of experimental results |
| New Data | LA | SCI.8.SI.22 | Use evidence and observations to explain and communicate the results of investigations |
| 1902: Success at Last | LA | SCI.8.SI.33 | Evaluate models, identify problems in design, and make recommendations for improvement |
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| **Learning to Fly: The Wright Brother's Adventure** | | | |
| **2004 Science** | | | |
| **Grade Level Expectations** | | | |
| **Louisiana Science** | | | |
| **Grade 9** | | | |
| **Activity/Lesson** | **State** | **Standards** | |
| 1901: The First Improvement | LA | SCI.9.PS.34 | Demonstrate Newton's three laws of motion (e.g., inertia, net force using $F = ma$, equal and opposite forces) |

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| New Data | LA | SCI.9.SI.2 | Describe how investigations can be observation, description, literature survey, classification, or experimentation |
| New Data | LA | SCI.9.SI.7 | Choose appropriate models to explain scientific knowledge or experimental results (e.g., objects, mathematical relationships, plans, schemes, examples, role-playing, computer simulations) |
| New Data | LA | SCI.9.SI.9 | Write and defend a conclusion based on logical analysis of experimental data |
| 1903: Powered Flight | LA | SCI.9.SI.5 | Utilize mathematics, organizational tools, and graphing skills to solve problems |
| 1903: Powered Flight | LA | SCI.9.PS.2 | Gather and organize data in charts, tables, and graphs |